ANNE VALLEE (TRIANGLE ISLAND) ECOLOGICAL RESERVE

PURPOSE STATEMENT

February 2003

Approved by:

Dick Heath
Regional Manager
Environmental Stewardship Division

Date:

Nancy Wilkin
Assistant Deputy Minister
Environmental Stewardship Division

Date: March 24/03

105-00226/

ANNE VALLEE (TRIANGLE ISLAND) ECOLOGICAL RESERVE
Purpose Statement

Ecological reserves are areas selected to preserve representative and special natural ecosystems, plant and animal species, features and phenomena. The key goal of ecological reserves is to contribute to the maintenance of biological diversity and the protection of genetic materials. All consumptive resource uses and the use of motorized vehicles are prohibited. **Anne Vallee Ecological Reserve is closed to the public to protect the nesting birds and sea lions.**

Primary Role

The **primary** role of Anne Vallee (Triangle Island) Ecological Reserve is to protect internationally important nesting sites and terrestrial habitat for seabirds and endemic mammals, many of which are rare and endangered. Triangle Island supports over 400,000 breeding pairs of colonial seabirds – more than any other island on the British Columbia coast. Together with Beresford Island Ecological Reserve and Sartine Island Ecological Reserve, it represents the single most important seabird area in Pacific Canada. This highly productive marine region off the northern tip of Vancouver Island is home to an estimated 55% of the world's Cassin's auklet population. Triangle Island itself has the world's largest colony of Cassin's auklet with 360,000 breeding pairs, representing 40% of the world's population. It also contains the largest and one of the few tufted puffin colonies in British Columbia, the largest common murre colony in British Columbia, and the only known nesting site of thick-billed murres in Pacific Canada. Given this ecological reserve's significance as a seabird nesting colony, it has been closed to the public.

Other unique wildlife features include several nesting pairs of rare Peale's peregrine falcons, the only known ground-nesting bald eagles in British Columbia, and endemic races of deer mouse and Townsend's vole which have evolved in isolation for thousands of years. In addition, other migratory seabirds, including rhinoceros auklets, glaucous-winged gulls, pigeon guillemots, pelagic cormorants, horned puffins, black oystercatchers, petrels, fulmars, albatross, and shearwaters utilize the area for critical breeding, nesting, and marine foraging habitat. In total, eighty-one bird species have been recorded on the island and adjacent waters.

Triangle Island is one of only three occurrences of active breeding rookeries of northern sea lions (an endangered red-listed species) along the British Columbia coast, with the island supporting the largest colony of more than 2,000.

Secondary Role

The **secondary** role is to protect cultural features. Triangle Island is a traditional First Nations gathering and egg collection site. It has an old village site and extensive middens of mussels intermixed with bird, mammal, and fish bones. In addition, the structural remains of a lighthouse from the 1909 - 1919 era can be found there.

Tertiary Role

The **tertiary** role is to protect special natural values and features. Extreme weather conditions, isolation, and the physical environment have created an environment that supports plant communities which are both unique in composition and expression. Triangle Island is treeless with wind-pruned salmonberry as the dominant vegetation feature. Plants associated with the salmonberry are Pacific crabapple, tufted hairgrass, and salal. The blue-listed plant hairy goldfields occurs on Triangle Island, which is one of only six known occurrences in British Columbia. This plant is unique in that it requires rocky coastal cliffs in the lowland zone

(Coastal Western Hemlock vh1), often nitrified from guano deposits and it is rare in southwest British Columbia.

Triangle Island contributes significantly to the representation of the Vancouver Island Shelf *Terrestrial* Ecosection (VIS). Between Sartine, Beresford, Triangle, Lanz and Cox islands (collectively known as the Scott Islands), this ecosection is almost entirely protected. These islands also contribute to the protection of the Vancouver Island Shelf *Marine* Ecosection (VIS), which is poorly represented in the protected areas system at 5.4%.

Quaterary Role

The **quaternary** role is for research and education. Beginning in the mid 1970s, Triangle Island has been a site for seabird ecological studies sponsored by the Canadian Wildlife Service. It is now the site of a research station sponsored by the Canadian Wildlife Service and the Simon Fraser University National Sciences and Engineering Council of Canada (NSERC) Wildlife Ecology Chair.

Management Issues

Known Management Issue	Response
Impact of research activities on the natural and cultural values (i.e. introduction of contaminants and exotic species, disturbance of nests/burrows and special cultural sites and disturbance of wildlife by helicopters)	➢ Develop conservation stewardship agreement with Simon Fraser University (SFU) / Canadian Wildlife Service (CWS) to ensure that: no-trace methods of habitation and research activities are implemented; that all items imported to the island are checked for possible contamination; and that helicopters are flown in a manner that minimizes impacts to breeding birds and sea lions.
Invasive species and feral rabbits impacting native species	➢ Work with researchers to implement a rabbit control program. ➢ Develop and implement an invasive species control program with help of researchers.
Lack of public awareness of the special natural and cultural values, boundaries, and the restricted access status of the ecological reserve	➢ Ensure that ecological reserve boundaries are on marine charts with notes on restricted access. ➢ In conjunction with First Nations, develop and implement interpretation program offsite.
Impact of visitation on natural values (i.e. recreational and commercial boats landing on island and approaching wildlife; aircraft overflights with possible landings; and commercial nature aerial photography)	➢ Support efforts to designate a complementary marine protected area under federal jurisdiction for an enhanced level of protection in the offshore area. ➢ Work with agencies that have overlapping jurisdictional responsibilities (i.e. DFO/CWS/Environment Canada/Transport Canada) to ensure both marine and air access are controlled. ➢ Work with DND, charter companies and commercial photographers to limit overflights. ➢ Increase public awareness of restricted access status of the ecological reserve. ➢ Work with researchers to help with monitoring activities and reporting non-conforming uses.

	➢ Follow-up with written notification to responsible parties.
Strained First Nations relations	➢ Develop good working relationships with First Nations to develop an understanding and appreciation of protected area status and ecological reserve values.

Conservation

Representation - ecosection	☒	Anne Vallee Ecological Reserve is the 2nd largest contributor (6.2%) to the representation of the Vancouver Island Shelf *Terrestrial* Ecosection (VIS). This ecosection is almost entirely protected (99.66%) by 7 protected areas. Lanz and Cox Islands Park is the major contributor (91.28%). Triangle Island is part of the Scott Island Group which has a total of 4,076 hectares of foreshore. The Scott Islands are the 4th largest contributor out of 28 protected areas to the representation of the Vancouver Island Shelf *Marine* Ecosection, which has only 5.39% protected provincially.
- biogeoclimatic subzone/variant	☐	Anne Vallee Ecological Reserve is an atypical example of CWHvh1
Special Features	☒	Unique plant communities, seabird colonies, puffins, ground nesting eagles, endemic mammals
Rare/Endangered Values	☒	*Red-listed species*: Townsend's vole *cowani* subspecies (only known occurrence); northern sea lion; horned puffin; thick-billed murre; and common murre. *Blue-listed species*: Peale's peregrine falcon; Cassin's auklet; tufted puffin; and hairy goldfields. *COSEWIC-listed Threatened*: Northern abalone.
Scientific/Research Opportunities	☒	Ongoing research five months of the year. Opportunities to research breeding birds; sea lions; small mammal evolution; insular biogeography; climatic influence on vegetation

Recreation

Representation backcountry	☐	Not Applicable
destination	☐	Not Applicable

travel corridor	☐	Not Applicable
local recreation	☐	Not Applicable
Special Opportunities	☐	Not Applicable
Education/Interpretation Opportunities	☒	Breeding birds – offsite with focus on natural values and sensitivity

Cultural Heritage

Representation	☒	Lighthouse site
Special Feature	☒	First Nations village site (8 or 9 house sites), gathering site, egg collection site, middens

Other Management Considerations

Other Designations	☒	Important Bird Area (International program that identifies and supports the protection of lands having special bird habitats); potential Marine Protected Area with federal-provincial Partnership.
Relationship to other PAs	☒	Part of a system of protected areas focused on bird breeding areas on the west coast of British Columbia. Part of the Scott Island Group.
Co-operative Management Arrangements	☐	Not Applicable
Partnerships	☒	SFU / CWS have a research station and research permit and contribute to management activities in the ecological reserve. Presently negotiating a conservation stewardship agreement.
Vulnerability	☒	Susceptible to oil spills, disturbance from boats and planes, feral rabbits, invasive species, offshore drilling, possible shipwrecks and the subsequent introduction of rats. A natural threat is the possibility of a tsunami given the geographical location.
Relationship to other Strategies	☒	Canadian Wildlife Service is undertaking a Marine Wildlife Area planning process to protect the foraging area of the seabirds. Part of the Marine Protected Areas Strategy.

Area: 980 hectares (119 ha upland; 861 ha foreshore)

Date of establishment: May 4, 1971. The foreshore component was added in 1995.